DOCUMENT RESUME

ED 337 856 EA 023 364

AUTHOR	Levin, Henry M.
TITLE	Building School Capacity for Effective Teacher Empowerment: Applications to Elementary Schools with At-Risk Students.
INSTITUTION	Consortium for Policy Research in Education, New Brunswick, NJ.
SPONS AGENCY	Office of Educational Research and Improvement (ED), Washington, DC.
REPORT NO	CPRE-RR-019
PUB DATE	Sep 91
CONTRACT	RI17G10007
NOTE	35p.
AVAILABLE FROM	Publications, Consortium for Policy Research in Education, Eagleton Institute of Politics, Rutgers, The State University of New Jersey, New Brunswick, NJ 08901-1568 ($10.00 prepaid).
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Accountability; Elementary Education; *High Risk Students; Organizational Effectiveness; *Participative Decision Making; *School Based Management; School Effectiveness; *Teacher Participation; Teacher Role

ABSTRACT

The move toward teacher empowerment in elementary schools with at-risk student populations is explored in this paper. Progress in addressing the needs of all students, especially those at risk, depends upon implementing teacher empowerment through participative decision-making. Methodology is based on experiences of the Accelerated Schools Program at Stanford University, which developed accelerated schools for at-risk students in five states, and a literature review on organizational effectiveness. The introduction examines issues of responsibility for educational decisions and their consequences as viewed by teachers, administrators, and parents in schools attended by at-risk students. A conclusion is that many crucial decisions regarding curriculum, instructional strategies, materials, personnel selection, and resource allocation should be made by school staff at the site level, supplemented by student and parental participation. The second part reviews research on the relationship between participative decision making and organizational effectiveness in nonschool organizations. The third part offers a design for building the capacity of schools and districts based on site-based decision making strategies, focusing on the accelerated schools concept, unity of purpose, teacher empowerment and support, and accountability. The concluding section concerns roles and responsibilities of all actors in the school scenario, with emphasis on district and school goals and the need for specificity, implementation of plans, various levels of assessment, consequences of success or failure, and importance of structure. (64 references) (LMI)

CONSORTIUM FOR POLICY RESEARCH IN EDUCATION

Building School Capacity for Effective Teacher Empowerment

Applications to Elementary Schools with At-Risk Students

Henry M. Levin

CPRE
The Policy Center
The Finance Center

Rutgers The State University of New Jersey
University of Southern California • Harvard University
Michigan State University • Stanford University
University of Wisconsin-Madison

CONSORTIUM FOR POLICY RESEARCH IN EDUCATION

CPRE unites six of the nation's leading research institutions in an exciting venture to improve the quality of schooling. The Consortium operates two separately funded, but interlinked research centers: The Policy Center and The Finance Center. Both centers are funded by the U.S. Department of Education's Office of Educational Research and Improvement.

Members of CPRE are Rutgers, The State University of New Jersey; The University of Southern California; Harvard University; Michigan State University; Stanford University; and the University of Wisconsin-Madison.

The research agenda for both the CPRE Policy Center and the CPRE Finance Center is built around three goals:

- To focus research on policies that foster high levels of learning for students from a broad range of social and economic backgrounds;
- To conduct research that will lead to greater coherence of state and local program and finance policies that promote student learning; and
- To conduct research that will increase the responsiveness of state and local finance and program policies to the diverse needs of students, schools, postsecondary institutions, communities and states.

In addition to conducting research as described above, CPRE publishes reports and briefs on a variety of education issues. The Consortium also sponsors regional policy workshops for state and local policymakers.

CPRE Research Report Series

Research Reports are issued by CPRE to facilitate the exchange of ideas among policymakers and researchers who share an interest in education policy. The views expressed in the reports are those of individual authors, and are not necessarily shared by the U.S. Department of Education, CPRE, or its institutional partners. This publication was funded by the U.S. Department of Education, Office of Educational Research and Improvement, grant number OERI-R117G10007.

Copies of this report are available for $10.00 each, pre-paid. Prices include book-rate postage and handling. Quantity discounts are available. Write: CPRE, Eagleton Institute of Politics, Rutgers, The State University of New Jersey, New Brunswick, New Jersey 08901-1568; attention: Publications. Phone (908) 828-3872.

CONSORTIUM FOR POLICY RESEARCH IN EDUCATION

Building School Capacity for Effective Teacher Empowerment

Applications to Elementary Schools with At-Risk Students

Henry M. Levin

September 1991

CPRE Research Report Series RR-019

CPRE
The Policy Center
The Finance Center

Rutgers. The State University of New Jersey
University of Southern California • Harvard University
Michigan State University • Stanford University
University of Wisconsin-Madison

Contents

Abstract

The purpose of this paper is to explore the move to teacher empowerment in elementary schools with at-risk students. The analyses draw heavily on both the general literature on work organizations as well as experiences of a Stanford University program to implement accelerated elementary schools to bring at-risk students into the educational mainstream.

The first part of the paper examines the question of where decisions should be made on behalf of at-risk students and concludes that many crucial decisions on curriculum, instructional strategies, materials, personnel selection, and resource allocation should be placed at the school-site. There also should be some student and parental participation in decisions. The second part of the paper examines the research on the relation of worker participation in decisions to productivity in enterprises other than schools. The final section addresses the need to build the capacity of schools and school districts to use site-based decision-making strategies featuring teacher empowerment to raise school effectiveness for at-risk students. Attention is focussed especially on issues of leadership, technical assistance, and accountability.

Preface

Henry Levin's *Building School Capacity for Effective Teacher Empowerment: Applications to Elementary Schools with At-Risk Students* is the first of a number of CPRE papers to shed light on the meaning of teacher empowerment. The term "empowerment" may already be fading from use, in large measure because of its vagueness. What does it mean to give more power to teachers as school-level professionals? Is it a question of authority over or participation in school-level decisions? Authority over classroom decisions? Knowledge and capacity to take advantage of authority? More effectiveness in the classroom, as a result of enhanced knowledge of content and instructional strategies?

Levin argues that decentralization of decisions and the participation of school staff in decision-making are necessary but insufficient elements of teacher empowerment. Capacity-building at the school and district level is required to make teacher empowerment "more than a tantalizing slogan," according to Levin. Drawing on his experience in developing accelerated schools for at-risk students in five states, Levin discusses a number of features of school-based decision-making that should be the focus of a capacity-building effort. We think this paper will be useful to policymakers and educators interested not only in accelerated schools but also in teacher participation in school-site governance more generally.

Susan H. Fuhrman
September 1991
New Brunswick, New Jersey

Acknowledgments

This paper was prepared for the Project on Teacher Empowerment of the Center for Policy Research in Education (CPRE), funded by the U.S. Department of Education. The author also wishes to acknowledge the support of The David and Lucile Packard Foundation through its grant to Stanford University for accelerated schools. The author also extends thanks to Ed Bridges, Jane Hannaway, Wendy Hopfenberg, Brenda Letendre, Betty Malen, Ron Ogawa, Dorothy Shipps, and Mike Smith for their helpful comments.

Henry M. Levin is professor of education and affiliated professor of economics at Stanford University where he serves as Director of the Center for Educational Research at Stanford, CERAS 402, Stanford, CA 94305-3084. Telephone: 415/723-0840.

Introduction

There is a certain ambivalence, then, in the teacher's sentiments. He yearns for more independence, greater resources, and just possibly, more control over key resources. But, he accepts the hegemony of the school system on which he is economically and functionally dependent. He cannot ensure that the imperatives of teaching, as he defines them, will be honored, but he chafes when they are not. He is poised between the impulse to control his work life and the necessity to accept its vagaries; perhaps he holds back partly because he is at heart uncertain that he can produce predictable results. (Lortie 1975: 186)

As illustrated in the above quote by Dan Lortie, the degree to which the U.S. educational system restricts the participation of teachers in decisions that affect their own teaching activities has long been noted, especially by teachers themselves. In this paper, I will argue that progress in addressing the needs of all students, but especially at-risk students, will depend crucially on establishing processes that empower teachers and other school staff to make important educational decisions.

To some degree the arguments that are presented are consistent with recent calls for teacher empowerment (Maeroff 1988). But, three major shortcomings of the teacher empowerment discussions are the lack of specification and concreteness, the absence of references to the organizational and empirical experience on worker participation in other contexts, and the failure to address the establishment of school capacity that will sustain productive, teacher and staff empowerment. This paper draws upon actual experiences educating at-risk students at the elementary level, and provides a linkage to the broader knowledge-base on worker participation. Finally, I argue that without developing the capacity of the school and its leadership to sustain a site-based model of teacher empowerment, it will likely fail to achieve its promise and be viewed historically as another slogan without substance. Accordingly, I introduce a systematic approach to building the capacity of school districts to use site-based decision-making with staff participation as a basis for meeting the educational needs of at-risk and other students.

This introductory section of the paper explores issues of responsibility for educational decisions and their consequences as viewed by teachers, administrators, and parents in schools attended by at-risk students. The next section sets out some general issues that need to be raised on teacher empowerment as well as the limits of present school organization for meeting the needs of educational professionalism and effective practice. Subsequent sections report some results of worker participation in non-school organizations, and discuss a design for building the capacity of schools to empower their staffs as a way of improving educational effectiveness.

This paper refers primarily to conditions in elementary schools serving high concentrations of at-risk or disadvantaged students. However, most of the general contentions are applicable to secondary schools and those with other types of students, although the degree of applicability and

the details will surely differ. My generalizations are designed to capture the characteristics and dynamics, especially, of large, urban school districts. I also use the terms "teacher empowerment" and "staff empowerment" somewhat interchangeably. Teachers are the dominant focus of my concern in this article because of their centrality to the educational process, but a similar case can be made for staff empowerment generally.

The specific context for applying teacher empowerment is drawn from our experiences in the Accelerated Schools Program at Stanford University. Since 1986, my colleagues and I have been working with elementary schools that are dedicated to accelerating the academic progress of at-risk students through site-based decisions and teacher participation (Levin 1987a, 1988; Hopfenberg, Levin, Meister, and Rogers 1990). The lessons that we have learned from working with these schools suggest the great potential for improving the educational process and educational outcomes for at-risk students. They also underline the crucial importance of developing the capacity of such schools for using teacher empowerment effectively on behalf of at-risk students. Both the organizational structures and processes that are consistent with these goals are outlined in this paper.

Who Is Educationally At-Risk?

At-Risk students refer to those students who are unlikely to succeed in school because their home experiences and resources are largely incompatible with the expectations embodied in conventional school practices (Bempechat and Ginsburg 1989; Levin 1986). Such students are heavily concentrated among minority groups, immigrants, single-parent families, and the poor. At-Risk students begin school without many of the standard skills upon which school experiences and curriculum are based. As these pupils move through school, they drop farther and farther behind the academic mainstream and account for a disproportionate share of dropouts, teenage pregnancies, drug use, and juvenile delinquency.

About one-third of all students in the public schools meet the at-risk criteria, and the proportion is rising rapidly because of high birth rates among these populations and large immigrations from Third World countries (Levin 1986; Pallas, Natriello, and McDill 1989). Without intervention, this future population will have a serious and deleterious impact on the quality of the labor force and the economy, higher education, poverty, crime rates, and the cost of public services (Levin 1989). But, before exploring changes in the education of at-risk students, it is important to examine the basis for the lack of promise of existing school organization with respect to at-risk students.

On one point there is great agreement. The American public schools are failing to provide the type of education that will enable students from at-risk backgrounds to succeed (Natriello, McDill, and Pallas 1990). Such failure is reflected in the poor achievement, low self-esteem, high dropout rates, drug and alcohol use, and teenage pregnancies of large numbers of children from minority, single parent, immigrant, and poor families. But, beyond this accord, there is little agreement on who is responsible for the failure.

Perceptions of Causes of Poor Educational Results

I have asked the following question to virtually hundreds of teachers, principals, other school staff, central office administrators, school board members, and parents: "Why are the educational results so poor for at-risk students?" "Who is responsible?" The following represent the answers that we have obtained from each group.

According to the Teachers: Teachers indict the *students* for not having the preparation and support from the home that they need to succeed in school. They are constantly acting out and have little educational motivation. They can't sit still, and they don't listen to or respect authority. Their *parents* do not support the goals of the school or the school program. To a large degree, these students must fend for themselves because the parents are not around or they come from single parent families where their mother is working or taking care of other siblings. Many of these children live in abject poverty accompanied by alcohol and drug abuse, violence, child abuse, and a non-caring situation.

The *school district* does not provide adequate resources for addressing the needs of 30 or so students to a class from a wide range of cultures and with great heterogeneity in learning abilities. Class sizes are too large and there are too few counselors and learning specialists to assist the classroom teacher. The curriculum is often inappropriate, and the central office personnel of the district are much more concerned with program regulations, mandates, and compliance than student outcomes. The *principal* is preoccupied with responding to issues of student discipline and compliance and reporting demands from the central office and views his or her future mobility in light of satisfying central office concerns rather than parental, student, or teacher concerns.

According to School Administrators: Administrators at both the school site and central district office blame *parents* and *students* in much the same terms as teachers do. But, in addition, they blame the state and local *taxpayers* for not providing adequate support for schools as well as state *laws* and the federal *regulations* attached to federal funds that limit their ability to improve educational outcomes for at-risk students. Finally, they indict teacher *tenure laws* that make it difficult to get rid of incompetent teachers (Bridges 1986) and the *teachers' unions* for restricting flexibility in decision-making and for preventing meaningful educational reform.

According to School Board Members: School board members are bewildered about the situation of at-risk students. They place much of their blame on poor state and local *funding* and the myriad of *regulations* that limit their role as well as entrenched *administrative bureaucracies* and *teachers' unions* for the inability to improve learning outcomes for at-risk students.

According to Parents: At-Risk parents simply respond that they have enough problems in their lives and do not have the resources or education to help very much. They view the schools as having the responsibility to educate their children, and if this is not done they charge the "highly-paid" educators with incompetence or laziness.

Who Is Responsible?

If one asks those educators and parents why at-risk students do so poorly in school, one is faced with a perplexing situation. Those who are formally responsible for the education of these children take no responsibility whatsoever for the poor educational outcomes. Rather, they blame all of the other participants. Teachers blame the students, parents, administrators, taxpayers, legislatures, and state and federal regulations. Administrators blame everyone except the administration and add to these the tenure laws and the teachers unions. Other respondents blame everyone except themselves.

The inevitable interpretation is that no one takes responsibility for the unenvious educational situation of at-risk students. Each constituency views the educational outcomes as deriving from influences beyond its control that limit its efficacy in taking responsibility for the situation and changing matters. From an organizational perspective, this is a pathological situation. Those who are formally charged with responsibility for the education of at-risk students believe that there is little that they can do to improve matters. It is up to the other groups to change. The result is an organizational sclerosis which prevents a serious onslaught on the problem of meeting educational needs of at-risk students. Since none of the major groups perceive themselves as having influence on the outcomes, none will take the lead in changing the situation. In this paper, I argue that the solution to this impasse is to build the capacity of school staff and parents at local school-sites to take responsibility for the educational outcomes of at-risk students by providing the resources, expectations, and empowerment to make educational decisions on behalf of such students. In the next section, I set out some general issues of responsibility and empowerment. In the following section, I examine the evidence on worker participation and organizational effectiveness. This serves as a prelude for setting out an approach to building the capacity of schools to improve their effectiveness through staff empowerment.

Issues of Responsibility and Empowerment

All work processes can be divided into four somewhat distinct activities: control, planning and design, implementation, and evaluation. Control refers to the overall governance, authority, and oversight. Planning and design refers to the organization of work, how it will be performed, who will perform it, and what equipment and other resources will be used. Implementation refers to the execution of the work plans, and evaluation refers to the assessment of the work process and outcomes. Traditionally, each of these activities has been separated out and referred to different levels of authority in the organization. The control function has been carried out by the highest level of management. Planning and design have been carried out by technical and professional support staff under high-level managers. Implementation has been the responsibility of lower-level blue and white collar workers who follow the regimen set out at a higher level without influencing that regimen. And, evaluation has been the purview of middle managers who supervise the work process and inspect the work product.

Further, the work process for those at the lowest levels—the vast majority of workers—has been divided traditionally into a large number of simplified procedures which have been assigned to individual workers to carry out in a routinized and repetitive fashion. Even Adam Smith, the leading advocate of a detailed division of labor warned:

> In the progress of the division of labor, the employment of the far greater part of those who have by labor, that is, of the great body of the people, come to be confined to a few very simple operations, frequently to one or two. But the understandings of the greater part of men are formed by their ordinary employments. The man whose life is spent in performing a few simple operations, of which, the effects too are, perhaps, always the same, or very nearly the same, has no occasion to exert his understanding, or to exercise his invention in finding out expedients for difficulties which never occur. He naturally loses, therefore, the habit of such exertion and generally becomes as stupid and ignorant as it is possible for a human creature to become (Smith 1937: 7).

Although this passage describes assembly workers, there is some parallel with the treatment of teachers with concomitant costs to both them and their students. In the case of schools, control is set out by the state, the district school board, and its management team. Indeed, recent state reforms are largely predicated on what Larry Cuban (1984) has called "school reform by remote control." Almost all of the planning and design is the responsibility of the district administration and its educational services specialists. At the elementary level, much of the school program is based upon district adoptions of a publisher's series in each subject that consists of a package of student texts and workbooks with teacher's guides and tests. All of this is closely integrated and aligned to encourage teachers to simply follow a highly prescribed set of activities (Apple 1986). Within the guidelines set by higher levels of government and by local school boards, the district administration plans the curriculum, resource allocation, personnel selection, and the myriad details of school organization and daily school life.

The implementation of these policies is left to individual schools and especially classroom teachers. The school principal is responsible for administering district policy and coordinating the logistics of the school, but most of the burden of implementation falls on teachers who must provide instruction within a highly detailed framework that is set out from above. The size of classes, length of class periods, curriculum materials, student assignment, student attendance and discipline policies, and evaluation of student achievement are determined exclusively or largely without teacher participation. Indeed, a major principle of curriculum design that is used by publishers who sell curriculum and materials to schools is to make the curriculum "teacher-proof" so that teachers can not alter the educational process from the pre-designed format.

Consequences of Current Roles

While these definitions and divisions of roles have negative consequences for school effectiveness generally, they have particularly pernicious consequences for at-risk students. First, the fact that school district and state policies are typically made in a uniform fashion ignores the enormous variety of student needs and characteristics found among schools. Those who make the policies and decisions lack regular contact with students and teaching, reinforcing at an abstract level the utility of "teacher-proof" curriculum and instructional strategies. Although teachers sometimes resist this standardization and attempt to make their own appropriate modifications, they are constrained by district adoptions of textbooks, curriculum, and evaluation criteria which limit severely their ability to intervene (Apple 1986; Wise 1979).

A second consequence is that by excluding teachers and other school-site staff from the major educational decisions affecting the schooling outcomes for at-risk students, teachers, principals, and other school-based educators can not take responsibility for educational outcomes. Under these circumstances it is easy to view educational outcomes as resulting from factors beyond the control of classroom teachers, since such teachers have little power to affect the planning, design and evaluation of educational activities. Thus, the work day of teachers is often composed of a litany of mechanical activities that are delineated by the policies, practices, procedures, curriculum, and materials that are adopted by school authorities at higher levels. Such an arrangement inures teachers to the particular needs of their schools and students, for they can do little about altering conditions to satisfy those needs.

A third consequence of present arrangements is the underutilization of talent in the schools. Since there are few opportunities for teachers to influence the organization, curriculum, or broad instructional strategies that are imposed on them, they learn to ignore the obvious and to repress their ideas and suggestions. Yet, many educators who have worked with teachers find an unusual wealth of productive ideas and insights among them when teachers are challenged to address school problems. The lack of opportunities to generate and test new ideas tends to stifle initiative and to suffocate the inherent talents that could be used to improve the education of at-risk students.

A fourth consequence is that the relatively fixed agenda for the school that is mandated from above tends to divide the functions of the school according to individual staff duties and roles

with little centrality of focus as a school. Within a highly prescribed school structure and curriculum, each staff member is required to follow the standard procedures and activities that define his or her role rather than working with others to overcome school challenges for educating at-risk students. A major consequence is that the school program is the sum of a large number of relatively independent activities carried out according to individual scripts rather than a carefully orchestrated drama with a central plot and purpose. A powerful unity of purpose on behalf of at-risk students requires the collective formulation of an agenda that takes account of school needs and potential responses, a problem-solving approach that includes all staff members. That process is highly unlikely when the overall agenda is delivered to the school, and each teacher is expected only to fulfill a highly stylized role that is largely independent of that performed by other teachers.

Observations and results from our Accelerated Schools Program suggest that a shift of school decision-making and responsibility from the district level to individual schools could reverse present failures to meet the educational needs of at-risk students by increasing the authority of teachers and other school staff to make appropriate decisions and take major responsibility for school outcomes. Commitment to a work activity as complex as teaching is best obtained when the persons implementing those activities participate in both the design of the process and evaluation of results. School-site decision-making with staff participation can provide teachers with the responsibilities for meeting the educational needs of their students as well as sharing a greater emotional commitment to their activities through their "ownership" of them. This process is likely to generate new ideas in an environment where ideas are valued for transforming practice. Finally, such devolution of decision-making can create incentives for creating school-wide strategies with mutual sharing and support among staff for formulating a unified program for the students in their school.

Before proceeding, it is important to address a major contradiction between the assertions that I have made and one branch of theoretical literature about schools. That literature on educational organizations suggests that schools are "loosely-coupled" organizations in that they lack a close organizational alignment of authority, goals, supervision, information, and sanctions between and among sub-units to reach major objectives (Weick 1976). One implication is that teachers and other staff members have a great deal of autonomy under such loose coupling. Indeed, one can find examples of a few clever teachers who have successfully resisted the regimentation and gotten away with a great deal of clandestine independence, at least over the short run.

But, of course, it is the overall climate of the organization that will affect the norms of behavior. If an institution is rule-bound where deviations from the rules are punished and if professional practice is assessed according to its compliance with standardized procedures, deviations will be uncommon and taken only at great risk. Arthur Wise (1979) has suggested that in order to give the appearance of regularized learning progress, schools have become hyper-rationalized institutions characterized by laws, guidelines, regulations, mandates, and directives that cover virtually all operations and that create a climate of control of "legislated learning". I have argued that those rules were designed to directly control teacher activities (Levin 1980) and, in the process, to create an environment in which teachers relinquish their professional autonomy

as a condition of employment. Certainly, Lortie's (1975) classic study of teachers seems to support the latter contention in the face of theoretical assertions of loose coupling.

In this section I have tried to set out the case for a major increase in school-staff responsibility for decisions. It is important to note that responsibility for decisions and their consequences is a necessary, but not sufficient condition for improving education. Schools must possess the capacity to use their responsibilities in a productive way, the main focus of the final part of this paper. The next section explores what has been learned by worker participation in decisions in non-school settings.

Worker Participation and Organizational Effectiveness

Although U.S. public schools have not had extensive experience with staff-based decision-making at the school site, there is a wealth of evidence on the impact of this approach in other productive organizations. Recent decades have been characterized by a productivity crisis in the U.S. economy as well as concern with the U.S. competitive position in world trade. At the level of the individual firm, there is a long-term challenge for profitability and survival which has initiated searches for more productive approaches to the creation of goods and services (Blinder 1990). One of the major strategies that is being pursued in the industrialized countries with their relatively well-educated labor forces is a movement towards greater worker participation in workplace decisions as a strategy for raising productivity (Levine and Tyson 1990).

There is considerable evidence that worker participation is associated with increased productivity in many industries and countries. Such participation can take many forms from increased input of individual workers into decision-making to team decision-making on the shop floor to worker-owned and managed firms that include direct participation at the level of the job and representation in decisions at higher levels (Bernstein 1976; Cotton *et al.* 1988; Crouch and Heller 1983). Virtually all of these forms of worker participation increase the domain of decision-making of workers and permit them to make decisions that entail the allocation of resources including their own work time. A substantial empirical literature has arisen that shows a positive relation between the presence and extent of worker participation and the productivity of the firm (Jones and Svejnar 1982; Cable and Fitzroy 1980; Guzzo, Jette, and Katzell (1985); Estrin, Jones, and Svejnar 1984, Levine and Tyson 1990; Miller and Monge 1986). Studies of individual firms have also shown that employee participation in workplace decisions is associated with higher productivity (Cotton *et al.* 1988; Einhorn and Logue 1982; Gyllenhammar 1977; Kelly 1982).

One of the most dramatic examples is found in the United States in the joint venture between Toyota and General Motors called NUMMI (Brown and Reich 1989; Krafcik 1986). The NUMMI plant in Fremont, California has manufactured both Toyotas and the Chevrolet Nova, a car that is identical to the imported Toyota Corolla. Toyota had responsibility for production and GM was responsible for marketing. The GM plant in Fremont had been closed in 1982 because of its poor product quality, low productivity, and high rates of worker absenteeism and alcohol and drug use. It was ranked at the bottom of GM plants in productivity and had absentee rates of over 20 percent and a backlog of more than a thousand grievances.

Toyota redesigned the plant completely and, by agreement with the United Auto Workers, some 80 percent of the workers hired by NUMMI were drawn from the previously employed GM workers from the Fremont plant. Production began in December 1984, and by the spring of 1986 the plant had reached its full capacity output of 20,000 cars per month. Productivity was 50 percent higher than in the old GM plant and was equal to that of its sister plant in Takaoka City, Japan. Unexcused absences were only about one-half of one percent, and the level of quality was found to be comparable to the imported Toyota Corolla by both consumer and industry analyses.

The NUMMI production process is built around the use of teams of five to eight members. Teams set out the work tasks and rotate them among members. They also meet periodically to discuss how to improve the work process and product quality. Whenever possible, it is expected that the teams will solve production problems rather than calling in engineering or management representatives. Workers have the right to stop the assembly line at any time to solve an assembly problem. Emphasis is on worker flexibility and involvement in the work process.

Equally dramatic results from worker participation have been noted in automobile manufacture in Sweden (Gyllenhammer 1977; Logue 1981). For example, Saab converted its automobile door assembly from a conventional assembly line with rigid job definitions to a team approach in which workers participated in decisions on equipment, selection, hiring, quality control, maintenance of machinery, and organization of work (Logue 1981). Annual worker turnover declined from 50 percent to 14 percent annually, and quality control problems diminished as did the need for quality control inspectors. Annual savings were nine times the annual costs of the change. Renault found that the movement to semi-autonomous work teams resulted in productivity increases of almost 30 percent in defect-free assemblies (Coriat 1979).

In electronics, a major manufacturer of integrated circuits organized one of its plants according to work teams that made decisions by consensus on work processes (Gustavson and Taylor 1982). Yields were raised by 25 percent above those of comparable, but traditional facilities, and employee turnover fell. Although these illustrative studies address manufacturing, the overall literature suggests that increases in worker participation are associated with higher productivity in a wide range of productive activities in both services and manufacturing (Kelly 1982; Levine and Tyson 1990). These practices are also found to have positive impacts on work attitudes in both Japan and in the U.S. (Lincoln 1989).

In summary, there is an expanding base of experience among U.S., European, and Japanese enterprises that shows that worker participation in decisions can raise productivity substantially. There is also evidence that this rationale will become increasingly important for shifting productive enterprises in both the private and public sectors from traditional systems of top-down control to ones based upon worker participation in decisions. The higher the education of the workforce, the greater will be the advantages of these approaches to the production of goods and services (Levin 1987b; Tsang 1987). More educated workers have greater ability to select and process the appropriate information in an information-rich environment and to use that information to allocate resources (including their own team) to activities to increase productivity (Schultz 1975; Zuboff 1988). In countries like Sweden and West Germany, there is already extensive participation on the basis of national laws (Pipkorn 1980). But, many individual firms have adopted these practices to reap the benefits of higher productivity, simply because it is in their self-interest.

Building Capacity

A compelling case can be made for shifting decision-making for the education of at-risk students to the school site and the staff at that site. Not only does this call for a decentralization of decisions, but for a heavy reliance on the participation of teachers and other staff in the decision process. In recent years, there has been increasing support for greater site-based decision-making and teacher autonomy as a general proposition (Maeroff 1988; Elmore *et al.* 1990). But, to a large degree there has been little specificity on what these terms mean or their consequences (Clune and White 1988; Malen, Ogawa, and Kranz 1991).

Educational movements have often been mere slogans rather than substantive and thoughtful activities, a condition which guarantees their early demise. Certainly the movement towards "teacher empowerment" and "school restructuring" or "site-based decision-making" is following a similar path unless it moves beyond vagueness and superficiality. At the present time it appears that teacher empowerment represents a movement that is a solution in search of a problem. The reasons for empowerment and restructuring and the forms that they take are varied (David 1990; Johnson 1990; Malen, Ogawa, and Kranz 1991; Murphy and Evertson, forthcoming). Typically the rationale is based on increasing teacher professionalism (Darling-Hammond 1988: 29-34; Maeroff 1988; Sykes 1990). Most noticeable in the ambiguities that are presently associated with the teacher empowerment movement is the lack of attention to the building of school capacity. For example, in the otherwise excellent report of the Carnegie Forum on Education and the Economy 1986 calling for greater teacher empowerment, there are few definitions of what is meant and no attention to the extensive capacity building required to make the changes effective.

When business firms adopt these types of changes, they normally acknowledge the need to make major investments in retraining and organizational structure (e.g. Marguiles and Black 1987). But, the very vagueness of what is meant by teacher empowerment creates a handicap in even specifying what changes need to be made and what needs to be done to support such changes. To provide a concrete picture of the capacity building that is necessary, it is useful to draw upon actual experience in applying site-based decision-making and teacher empowerment in schools for at-risk students. I think that the claims made here apply to other levels of schooling and schools with o ·er student populations. However, for purposes of drawing on concrete experiences, I will refer only to elementary schools with large concentrations of at-risk pupils.

Accelerated Schools for At-Risk Students

Since 1986, my colleagues and I have derived considerable experience in the development and implementation of the Stanford Accelerated Schools Program. Accelerated schools for at-risk students represent an attempt to create schools that "speed-up" the learning of such students to bring them into the educational mainstream by the end of elementary school (Levin 1987a; 1988). This approach is in direct contrast with the usual approach of placing such students in remedial instructional settings which slow down learning through reduced content and reliance on drill and

practice. The transformation process for accelerated schools is designed to take conventional schools with high concentrations of disadvantaged students and convert them into accelerated schools over a six-year period, but with major improvements even in the first year. An important goal is to reduce dropouts, drug use, and teenage pregnancies in secondary schools by bringing at-risk students into the educational mainstream at an early phase of their school careers.

The accelerated school is built upon a unity of purpose on the part of the school in creating activities that are dedicated toward accelerated progress; the establishment of school-site decision-making and responsibility for results; active participation in decisions by school staff and parents with reliance on small group task forces and a school-wide steering committee. Parental training and involvement are central, as well as a pedagogy that is constructed on the strengths and culture of the children with a heavy reliance on interesting applications, problem solving, active and "hands-on" learning approaches, and an emphasis on thematic learning that integrates a variety of subjects into a common set of themes.

The accelerated school project at Stanford University draws heavily upon research findings on the productivity of worker cooperatives (Jackall and Levin 1984) as well as recent thinking on gifted and talented students (Chase 1990; Fetterman 1988) and on the consequences of placing at-risk students in challenging educational settings rather than remedial ones (Peterson 1989). It has also benefitted from syntheses of research and evaluation findings on Chapter 1 (Peterson 1986; Romberg 1986).

Midway through the 1986-87 school year we initiated our first pilot accelerated school in San Francisco. In the fall of 1987 we began work with the second of our two pilot schools in Redwood City, California. In the fall of 1988, the State of Missouri coordinated the establishment of six pilot schools, an effort that was expanded to 10 schools by the fall of 1989. The most ambitious undertaking is sponsored by the state of Illinois where a statewide network of 25 schools was established at the onset of the 1989-90 year. By the 1990-91 school year, some 52 elementary schools and 2 middle schools had initiated the accelerated school process.

Even our two pilot schools have gone through only three years of the six-year period required for a full accelerated transformation. Therefore, we have not undertaken a summative evaluation. But many obvious changes are observable. Both pilot schools have shown dramatic improvements in student achievement. In 1989-90, the pilot school in San Francisco had the largest achievement gains on the Comprehensive Test of Basic Skills (CTBS) in language and the second largest gain in mathematics among all 72 elementary schools in that city. It should be noted that Stanford's technical assistance to that school ended in the previous year, so the school had to be self-reliant in 1989-90.

Parent participation in the two schools has increased dramatically. In the pilot school for which we have been able to obtain longitudinal data, parent attendance at back-to-school night increased from 17 persons prior to the intervention to about 450 persons at the beginning of the third year. Participation at parent conferences increased from less than 40 percent to almost 95 percent in the same period. Student discipline problems declined precipitously, and attendance patterns improved. School staff report substantial improvements in the school environment.

New programs have been selected by school staff and have been introduced in language, mathematics, and student self-esteem. In the year following the establishment of mathematics as a priority area and the search for and implementation of school-based solutions in one of the schools, mathematics scores of sixth graders rose from the 10th to the 27th percentile on statewide norms of the California Assessment Program. Finally, there is evidence of reduced grade repetition, resulting in the saving of considerable costs to school funding sources.

We have similar evidence at an earlier stage of development for accelerated schools in Missouri and Texas. From our experience in implementing the accelerated school program, both in our two pilot schools and in conjunction with statewide and local efforts around the country, we have concluded that school-based decision-making approaches to meet the needs of at-risk students must incorporate a number of features that should be the focus of a capacity-building effort. These include the following:

- a unity of purpose;
- adequate scope of discretion to address the unity of purpose;
- an accountability or assessment system for monitoring results;
- incentives that are linked to unity of purpose and specific goals;
- information on alternatives;
- capacity of staff to define problems, choose among alternatives, and implement changes;
- availability of adequate support from school districts for the provision of technical assistance, information, staff development, and evaluation; and
- adequate time for staff collaboration.

The importance of each of these are described below.

Unity of Purpose: All productive enterprises must have a unified goal towards which the resources of the firm can be directed and which can be used to set out measures of progress. Firms in the private sector typically seek to maximize profits or market shares, and as an analogue we might expect schools to try to maximize the learning and human development of their students. Unfortunately, one of the prominent features of schools that serve at-risk students seems to be the absence of a unified school agenda as elaborated in an earlier section.

Just as worker participation in business firms is predicated upon an overall mission around which workers can collaborate and plan their activities and assess the effectiveness of their contributions, so must schools develop such a mission for school-site decisions with teacher and staff participation. This must be more than just a list of goals, but a unity of purpose around which both individual and school-wide efforts are marshaled. Indeed, the unity of purpose should be used as a yardstick for assessing the priority of activities. It is clear that the plethora of standard operating procedures, rules, regulations, guidelines, policies, and reporting requirements that schools are pressed to comply with, what Arthur Wise (1979) has termed, "legislated learning," do not assure educational success as evidenced by the poor educational results for at-risk students. The concept of unity of purpose must be so powerful, that activities that do not contribute to that unity must be eliminated or at least minimized, perhaps through negotiations with the central office.

Ultimately, the unity of purpose must embrace an explicit agreement among parents, teachers, and students on a common purpose and concrete goals for the school that will be the focus of everyone's efforts. This principle is also at the heart of the program of the Yale Child Study Center and its program with inner-city schools (Comer 1980). In the Accelerated Schools Program, each school is expected to formulate its own specific unity of purpose through a collaborative process. However, the philosophy of such schools requires that the overriding goal of academic acceleration is the dominant one. Further, this unity of purpose is more than a written statement of agreement. It is a vision and sense of destiny that must reach into the very motivation of students, parents, and school staff and permeate all activities and assessment.

Scope of Discretion: Scope of discretion refers to the areas of decision-making that are relegated to individual school sites. In order to address effectively the unity of purpose of the school, staff must have the ability to make those decisions that will promise productive outcomes. Among the areas that are most central are: the choice of curriculum, instructional strategies, instructional materials, and personnel and the ability to allocate resources. While state and local regulations and guidelines may place some legitimate limits on each of these for purposes of accountability and uniformity among schools, it is important that a major share of decision responsibilities be placed at the school site.

Scope of discretion in each of these areas is a matter that is least settled with respect to issues of site-based management and teacher empowerment. Precisely which decisions should be relegated to individual schools and the proper role of school staff in making decisions is an issue that must be developed over time. Clearly, the willingness of higher authorities to relinquish areas of control will be conditioned upon the degree to which schools will be held accountable for their decisions as well as the perceived capacities of individual schools to make informed decisions.

Whatever the starting point, as schools gain experience in making crucial educational decisions, their capacity to expand the scope of such decision-making will grow. This has certainly been the case with our accelerated schools in which we have found that school staff demonstrate a rising sophistication and ability to make decisions over an ever-widening range of issues as they gain experience. For example, their experience seems to sharpen their abilities to define problems and to obtain pertinent information for decision-making as well as to work productively in collaboration.

Accountability System: A third feature that is necessary for effective teacher empowerment in a site-based approach is that of a system of accountability that will enable both the participants and their audiences to know how well the system is performing. Schools must have a clear picture of their goals and be held accountable for them. This means that the school district and individual schools should agree on the priorities for each school as well as a system of measuring progress towards meeting these objectives. Such objectives may include not only student achievement, but also student attendance and participation in school activities, parental participation, reductions in student vandalism, and other appropriate goals. Individual schools can also set out special goals or themes in the arts, sciences, technology, or multicultural activities. Each of these should be associated with an approach to measurement that is appropriate and feasible, including the use of portfolios of artistic activities or other accomplishments. Accountability information should be

updated systematically on a periodic basis as a way of assessing school progress. The Accelerated Schools Program is experimenting with different approaches to establishing accountability including performance profiles and portfolios (Fetterman and Haertel 1989). The individual school accountability approach is also consistent with the School Accountability Report Cards that are now required of every school in California by virtue of passage of a constitutional referendum, Proposition 98, in 1989 (Association of California School Administrators 1989).

Incentives: The school and its personnel must be provided with incentives for reaching goals. These incentives can be symbolic in the form of public awards and praise, financial in the form of bonuses for personnel or additional resources for the school program, and intrinsic in the form of a high level of professional accomplishment and comradery. All three types of incentives should be considered.

On the basis of empirical studies of worker participation, there is reason to believe that intrinsic satisfactions of school staff will rise in relation to the degree to which they have the power and supportive conditions to make important decisions about their own activities (Cotton *et al.* 1988; Lincoln 1989). That is, much of the incentive for success can be intrinsic to a school where teachers have the power to make important professional decisions and can take credit for their success. In this situation, intrinsic rewards can be used to support special efforts or particular educational accomplishments. Of course, the same principles can be applied to incentives for students and parents along with the expansion of their decision-making capacities and scope.

Information on Alternatives: Good decisions are informed decisions. In this respect, schools need access to information that assists them in understanding their own performance, defining problem areas and the causes of those problems, and searching for alternatives and solutions to those problems. Thus, a provision must be made to provide such information to schools in order to enhance their decision-making capacity. To a large degree, this type of service will become the responsibility of the school district, since such information capabilities benefit from a centralization and economies of scale.

The provision of information can also build on an on-line data base (e.g. the ERIC system) sustained by higher levels of government, such as states or the federal government where every school can search for information on research, particular interventions, and case studies that address student populations and needs that are found at a local site. The schools in the Accelerated Schools Project have been experimenting with different approaches to obtaining pertinent information including the use of university-based facilitators and those in intermediate level educational agencies sponsored by the state at county or regional levels. However, ultimately we believe that school districts must have the capacity to establish both an information base and the personnel capability to work with individual schools in assisting them to obtain the information that they need for problem-solving and decisions.

Capacity of Staff to Identify and Solve Problems: A problem solving approach in which teachers and other staff work collaboratively to address school needs requires a capacity of staff to identify and solve the challenges that the school faces. In this context, our accelerated schools cannot succeed without creating a school capacity to establish a unity of purpose, to make

responsible decisions, and to build on strengths. In particular, school staff must work in both large and small groups to define the problems that the school faces, set priorities among them, clarify the causes of the problems, identify alternative interventions and their consequences, choose and implement particular interventions, and evaluate the results. Most school staffs have neither been trained nor expected to function in this way.

Much of the capability to make good staff decisions and take responsibility for school outcomes stems directly from practice or learning-by-doing. As school staff and community work at it, they become experts at the process. But, in order to get the process started, there are a number of steps that must be taken.

It is usually necessary to provide some training in making decisions within groups. Rarely do principals, teachers, and school staff have this experience. Meetings in traditional schools tend to be highly structured and run in a routine and often authoritarian fashion. Teachers, in particular, consider meetings a waste of time. School staff rarely view meetings as having the potential to be productive and to accomplish major goals in behalf of the school. Accordingly, school staff need experience in working together with special attention to group process and participation, sharing of information, and working towards decisions. In the Accelerated Schools Program, we have established a training program called "Teaming With Excellence" which all school staff participate in to develop these skills.

Accelerated schools establish an overall process that begins with a school-wide discovery process about the schools programs, students, and community and its strengths and challenges. This establishes the school staff's ownership of its situation and leads to a second stage, that of creating a powerful vision for what the school will be when it is fully accelerated. Both the gathering and discussion of baseline information on the school and the construction of a vision require the full participation of all staff members (and parent representatives) in a process of discourse, reflection, deliberation, and decisions. Task forces are formed to address priority areas through an inquiry process that stresses the collection of pertinent information in order to further define and understand the problem; the generation of hypotheses to explain the problem; the search for alternative interventions building on the strengths of the school, students, and community; adoption and implementation of interventions; and evaluation of the results. This inquiry process is heavily grounded in the philosophy of John Dewey and requires both training and guidance (Rogers and Polkinghorn 1989). The establishment and maintenance of these processes must be heavily supported through technical assistance and staff development assistance from the central office of the school district, a matter that we will address next.

Central Office Support: School districts need to play a greater service role for individual schools than they normally do. Instead of serving as regulators of schools with rules, mandates, and policies to ensure compliance of school activities with some centralized plan, the school district must provide support services to help the accelerated school succeed at its mission. Central office staff need to assist task groups and the steering committee in identifying challenges, obtaining information on alternatives, implementation, staff development, and evaluation. They must also assist the schools in working with parents and helping families sponsor activities in the home that support educational progress of their children.

In order to do this, central school offices must learn to collaborate with individual schools on problems that are largely identified at the level of the school. Central office personnel in the areas of curriculum, staff development, evaluation, and finance should spend considerable portions of their time at school sites working with the steering committees and task committees of schools to provide information and assistance. The overall philosophy of the central office staff should be one of expanding their service and support functions to schools to help them succeed at their educational missions while reducing demands on schools for procedural accountability.

Availability of Time: In order for a school staff to work together to define challenges and search for and implement solutions, time is required outside of the ubiquitous teaching demands. In contrast with secondary schools where two out of seven periods of "prep" time are often given for meetings, planning, preparation, and so on, elementary school schedules do not provide such amenities. Other than about an hour a week for faculty meetings and occasional periods for staff development, there is no time provision for working together on the accelerated school process. In the long term, it will be necessary to restructure the school schedule to build in systematically a provision for time for teacher reflection, inquiry, collaboration, and evaluation.

In the Accelerated Schools Program we have taken the following steps to maximize the amount of time available for focussing on the school agenda. Since the accelerated school process is a whole school effort, all faculty meetings and staff development days are devoted to the accelerated process. Previously established committees, if needed, are folded into accelerated school activities. Attempts are made to secure additional time through the scheduling of particular activities that can be partially or fully staffed by the visiting school district teams in the arts, sciences, and physical education. Small grants have been obtained from foundations to pay for substitutes and for meetings outside of regular school hours. While these solutions are helpful, they are piecemeal. We believe that school systems need to recognize that elementary school staff require "prep" time just as do secondary school staff, if site-based decision-making and responsibility are to be effective.

Roles and Responsibilities

Clearly, the establishment of site-based decision-making in conjunction with teacher and staff empowerment requires new roles and responsibilities, not only for teachers, but for other actors in the school scenario. In order to better understand those roles, it is useful to set out the elements of a model of school accountability. This model requires substantial changes in the organization and functioning of school districts, and the Accelerated Schools Program is only in the earliest stages of pursuing these changes in a pilot school district. Nevertheless, it is important to set out the overall design that we believe is responsive to establishing roles and responsibilities for empowered school-sites. In both this section and the previous one, I must emphasize the importance of thinking of the overall system of capacity-building rather than its separate parts. In my view, all of these components must be present in order for staff-empowered schools to function effectively.

District Goals

The first step in initiating a new system of accountability is that of setting district-wide goals and implementing these at the school level. Under state law the school board is ultimately responsible for setting the overall direction of a school district. This means that the school board in conjunction with its central administration must set the goals for its schools. These will include frameworks set by the state as well as goals that are unique to the district. Examples of the types of goal categories that the school board and central administration might set out include the following:

- student attendance;
- student academic achievement in specific areas;
- student participation in school activities;
- student self-esteem;
- reduction of school vandalism;
- reduction of student disciplinary cases;
- reduction of dropouts (secondary level);
- reduction of teenage pregnancies (secondary level); and
- parental participation.

This is an illustrative list rather than an exhaustive one. The district must set out a definition of each of these and the method of measuring each, as well as a general goal statement. For example, parental participation might include a number of sub-categories including parent-teacher meetings on student progress, parent attendance at major school functions, parent volunteers in classrooms or other school activities, and so on.

The district staff should collect baseline data for the district as a whole and each school for each of the goal categories. School staff should assist in this project with particular emphasis on

some of the qualitative indicators that describe the initial situation such as descriptive statements by teachers of school strengths and challenges. This task requires establishing a measurement approach for each goal and gathering the data that are consistent with that measurement. Each of the schools should be given this information for the purpose of setting specific goals for the next three years.

Setting Specific Goals

Each school should be charged with proposing a set of goals that it will seek to attain over a three to five-year period of accountability. The multi-year period is preferable to a single year because it will promote longer range thinking and action with regard to achieving goals. Many problems faced by schools—especially those with large numbers of at-risk students—cannot be addressed in a one-year period. Too short a time horizon promotes "quick fixes" which have little long-run payoff. It is assumed that empowered schools will be able to propose goals based upon a participative form of governance that includes parents. This will mean that they have organized themselves with an overall steering committee and cadres or task forces under the coordination of the site administrator or principal.The school response will include not only the setting of goals in areas specified by the school board and central administration; it will include any particular goals that are unique to the school. For example, some schools will wish to provide particular programs in the arts, sciences, foreign languages, multi-cultural areas, community contributions, and so on, beyond those set out by the district. Schools should be able to establish particular areas of specialization and set goals in those areas that make them distinctive. This is especially important in cases where districts allow parents to choose the schools that their children will attend.

Schools will make a formal proposal to the school board and central administration on a multi-year goal program. They will also suggest ways that they plan to meet these goals with a best estimate of resource requirements and where those resources might be obtained. To do this they will need some assistance from the business office, but such plans should also include potential sources of funding and assistance from local businesses, parent and other volunteers, categorical programs, and private foundations. The plan and the goal statements will be negotiated between the school and central administration and ultimately recommended to the school board for approval.

Implementation

Once the plan is accepted by both the school and school district, the multi-year program begins. The school is responsible for making its best effort to reach its goals. That is, we are referring to "bottom-line" accountability for the school rather than the present system that emphasizes "compliance" with district procedures, regardless of their educational consequences for students.

But the school can't go it alone. It is the district's responsibility to provide the support services that will enable the school to reach its goals. This means that the district must move from

a model of expertise and authority that directs schools what to do to one of collaborative problem-solving and implementation with individual schools. How would this work?

At the present time many curriculum or educational service staff at the district level are largely isolated from school and classroom practice, particularly in the larger school districts. Such staff are expected to meet a perceived curriculum need set out by the state, school board, or their own understanding of where curriculum work must be done for the district. Although some curriculum study projects may have representatives of individual schools on an advisory committee, there is not the integration of theory and practice which can only evolve through working directly in schools. The result is that textbook publishers often have a far greater influence on curriculum and materials selection and educational policy than do the schools and educators who must implement the curriculum and use the materials (Apple 1986; Elliott and Woodward 1990).

The approach that is advocated here is to provide services from the central office to individual schools through a collaborative approach to problem-solving. That is, school staff at individual sites with central office assistance would identify problems that need attention of the school staff in order to enable them to reach their goals. Personnel from the central office in the various service areas would work directly with the steering committee of a school or specific task forces at the school site. Staff from the central office would be called upon to: (1) assist in identifying the problem and narrowing it to specifics; (2) help set out the inquiry process on the basis of the model elaborated by Rogers and Polkinghorn (1989); and (3) provide the specific technical services needed for addressing curriculum, instructional strategies, staff development, implementation, and evaluation.

In this respect, curriculum staff at the central office would spend at least half of their time working with individual schools on particular curriculum problems identified by those schools. The same would be true of other central office personnel in the areas of instruction, staff development, and evaluation, who would be expected to allocate at least half of their time to collaborating with staff at school sites on pertinent problems. Staff from the business office might also be needed to assist individual schools in their business and resource allocation practices. The advantage to central office personnel is a higher level of professionalization than the present bureaucratic model allows by virtue of their being able to get hands-on interactions with specific schools and to collaboratively and professionally address problems that are identified by those schools.

The principal should be the main leader and organizer at the school level, providing coordination at the level of the school and serving as a liaison to the school district services. In this role, the principal will take the lead in responding to the goal statements of the school district by working with school staff and parents to establish both specific multi-year goals and a general school plan for reaching those goals. The principal will be the main actor (along with the school's steering committee) in negotiating the plan with the central office; obtaining the necessary resources; and obtaining services from the central office for collaboration on the plan.

A good principal in the context of this model generally, and the accelerated school particularly, is one who is an active listener and participant, who is an excellent facilitator of group dynamics, who can identify and cultivate talents among staff, who can keep the school focussed on its mission, who can work effectively with parents and community, who is dedicated to the students and their success, who can motivate the various actors, and who can marshal the resources that are necessary. The principal must also have keen analytic and planning skills in order to coordinate productively the many on-going activities and initiatives of the school without creating burn-out among staff. Finally, the principal is the "keeper of the dream", helping staff to overcome temporary disappointments or setbacks by maintaining the vision and reinforcing the unity of purpose. Existing principals must make the transition, from control and policy enforcement to inspiration, facilitation, coordination, and acceleration.

In accordance with what others have found in different school settings, our work on accelerated schools has highlighted the crucial role of the school principal (Deal and Peterson 1989). We are convinced that many existing principals do not have the skills set out above, and few training programs for principals ensure that future principals will have such skills. Indeed, as is the experience with studies of managers in business firms (Collins, Ross, and Ross 1987), many will proclaim their support for staff empowerment and participation while resisting the changes or failing to provide leadership. Among our 54 accelerated schools in the various phases of implementation, we have found that at least half of the principals continue to try to "run the school," despite their overt enthusiasm for the accelerated school approach and teacher and parent empowerment. To some extent this is a matter of personality. To some extent, however, it is a matter of skill in undertaking a leadership role in a decentralized organization.

One promising approach for providing those skills is found in a program for training principals at Stanford University that is directed by Professor Edwin Bridges. This program pursues an active problem-solving approach based upon collaboration and practice in simulations that are based upon real situations and cases (Bridges 1989). But, the dearth of training programs and selection of most incumbent principals on the basis of other criteria means that we may face a serious crisis in leadership for schools that are based upon school-site empowerment. This challenge will have to be addressed. Insights into the leadership requirements for future principals and how they might be trained are found in Bridges (1989), Dwyer (1985), Peterson (1985), and Deal and Peterson (1989).

Assessment

Assessment will take place at a number of levels. Bottom-line assessment will focus on whether the goals are being attained. At the end of three years, the district will gather data in each of the goal areas to see whether the objectives have been achieved. But, also, during the interim period—and at least on an annual basis—the district will help the school determine its interim progress. It will be important to monitor if progress is being made in terms of the enabling processes of setting out changes and implementing them as well as qualitative and quantitative indicators of outcomes. Qualitative measures could focus on school and classroom processes and

student and parent responses to new initiatives. Some insights can be found in Fetterman and Haertel (1989).

These assessment practices should also provide a basis for formative input into school decision-making. That is, they should not only identify whether progress is being made, but they should also indicate areas in which there seem to be problems as well as suggestions for overcoming the problems. Problems may occur in the conceptualization or implementation of a solution or in staff development. They may also occur in personnel areas that go beyond staff development. It is important for schools to confront any bottlenecks by formulating mid-course changes and corrections that are necessary to reach their goals.

It will also be desirable to have individual schools periodically evaluate the services that are being provided from the central office. Normally, schools see themselves as accountable to compliance with the demands of central office personnel rather than with the demands of bottom-line accountability. Once bottom-line accountability is established with school responsibility for results, it is important to assure that schools are receiving the support of central office services. Accordingly, it would be useful to make provisions for schools to periodically evaluate the quality and collaborative nature of these services for policy and decision guidance of the school superintendent and her staff and the school board.

Consequences of Success or Failure

What are the consequences of meeting or not meeting goals? The year following the completion of a multi-year plan should be a period for assessment and reformulation of a new plan. That year would be one for considering the results of the previous plan and establishing a new plan. Of course, during this year the schools will continue to follow their model of decision-making and change, but it will not be part of a specific multi-year plan. This year of assessment, reformulation, negotiation, and agreement on a new plan will serve to invigorate the process while permitting feedback from consequences of the previous plan—its process and results—to serve in guiding the formulation of a new multi-year plan.

During this year of assessment and planning, it is important to ascertain which goals have been met or even exceeded and which ones have not. At this point, the school staff should meet to discuss the assessment results. There should be at least a preliminary attempt to determine why some goals were exceeded and others were not met as well as to ascertain whether progress was adequate even on those goals that were not fully met. Some questions that might be raised include: (1) Were some goals too ambitious or too easy to reach, given the school's capabilities and resources? (2) What did the school learn about its capabilities and areas for improvement?; (3) What changes need to be made in both school and district capacities, and with reference to what particular services and goals?

These should be discussed both within the school and jointly with school district staff during the year following the three-year plan. At the same time the district staff should be discussing

similar questions and consequences for district resources and organization. These should come together in the new district goals and their actualization at the school level.

In the event that the performance of a particular school has been poor—not reaching most goals set at realistic levels—the district staff should consider what bottlenecks exist. To the degree that personnel changes are called for, these should be considered and implemented. Of course, serious personnel shortcomings should be identified much earlier, and action should be taken at that time when such problems are obvious. To the degree that the shortcomings are due to resource constraints, external sources of instability such as a rapidly changing student population, or other causes, these will have to be addressed.

One particular situation that will need attention is high turnover of students in given schools. In some schools, 30 percent or more of the students who enroll in a school at the beginning of the year are not there at completion of the year. In these cases, schools may need to seek to coordinate programs with schools from which they "receive" or "send" the preponderance of their transfers as well as to capitalize on the participation of the more stable portions of their student and parent populations. Both the setting of goals and the assessment of whether goals have been met must take account of student mobility.

For those schools that have met their goals, there should be public awards for the schools and for particular teams within the schools. Even among schools that have not fully met their goals, such awards and recognition should be given for progress in specific areas. These awards can be represented by certificates, professional recognition, and material rewards. For example, schools that meet all or most of their goals can be provided with some special equipment, an awards reception, or cash augmentation of the budget that can be used broadly to meet school needs.

Importance of Structure

This paper has contended that site-based decisions with teacher empowerment have little meaning without specifying what is meant and how it will be accomplished. The development of an effective approach requires systematic attention to a range of important dimensions as well as the development of the capacity of school districts, individual schools, and their constituents to contribute to the approach. As we move towards new school structures, we will need to experiment with different approaches before converging on those that are most satisfactory. But, above all, planning and capacity building must be comprehensive, encompassing all parts of the school and school district and capitalizing on periodic assessment of both mechanisms and results. In the absence of careful planning and implementation of the necessary features, teacher empowerment will remain little more than a tantalizing slogan. It is encouraging to see that, Thomas Sobel, State Commissioner of Education in New York, has proposed a comprehensive state framework that would support the type of approach outlined in this study (New York State Education Department 1990).

Bibliography

Apple, Michael W. (1986). *Teachers and texts*. New York: Routledge & Kegan Paul.

Association of California School Administrators (ACSA). (1989, June). *Model accountability report card*. Burlingame, CA: ACSA.

Bempechat, Janine, & Herbert P. Ginsburg. (1989). *Underachievement and educational disadvantage: The home and school experience of at-risk youth*, Urban Diversity Series No. 99. New York: ERIC Clearinghouse on Urban Education. Teachers College, Columbia University.

Bernstein, Paul. (1976). *Workplace democratization: Its internal dynamics*. Kent, Ohio: Kent State University Press.

Blinder, Alan S. (Ed.). (1990). *Paying for productivity*. Washington, DC: The Brookings Institution.

Bridges, Edwin M. (1989, October 27-29). Combining theory, research and practice: Problem-based learning. Paper presented at the University Council for Educational Administration Convention, Tucson, Arizona.

Brown, Clair, & Michael Reich. (1989, Summer). When does union-management cooperation work: A look at NUMMI and GM-Van Nuys. *California Management Review, 31*(4), pp. 26-44.

Cable, J., & F. Fitzroy. (1980). Cooperation and productivity: Some evidence from West German Experience. *Kyklos, 38*(1), pp. 100-121.

Carnegie Forum on Education and the Economy. (1986). *A nation prepared*. New York: Carnegie Corporation.

Chase, Christopher. (1991). Releasing the gifted potential of 'at-risk' students. In Henry M. Levin (Ed.), *Accelerating the education of at-risk students*. New York: The Falmer Press.

Clune, William H., & Paula A. White. (1988). *School-based management: Institutional variation, implementation and issues for further research*. Center for Policy Research in Education, No. RR-008. New Brunswick, NJ.

Collins, Denis, Ruth Ann Ross, & Timothy L. Ross. (1989, December). Who wants participative management? *Group and organization studies, 14*(4), pp. 422-445.

Coriat, Benjamin. (1979, January-March). La recomposition de la ligne de Montage et son enjeu: Une nouvelle 'economie' du controle et du temps. *Sociologie du Travail*, pp. 19-32.

Cotton, John L., David A. Volbrath, Kirk L. Froggatt, Mark L. Lengnick-Hall, & Kenneth R. Jennings. (1988). Employee participation: Diverse forms and different outcomes. *Academy of Management Review, 13*(1), pp. 8-22.

Crouch, Colin, & Frank A. Heller. (1983). *International yearbook of organizational democracy*, Volume I. Organizational democracy and political processes. New York: John Wiley and Sons.

Cuban, Larry. (1984, November). School reform by remote control: SB 813 in California. *Phi Delta Kappan, 66*(3), pp. 213-215.

Darling-Hammond, Linda. (1988, July). Education reform and federal policy: Supporting Perestroika and professionalism in the public schools. Paper prepared for the Educational Policy Seminar, Aspen Institute. Aspen, CO.

David, Jane L. (1990). Restructuring in progress: Lessons from pioneering districts. In Richard Elmore (Ed.), *Restructuring schools*. San Francisco: Jossey Bass. Chap. 7.

Deal, Terrence, & Kent D. Peterson. (1989, May). *The principal's role in shaping school cultures*. Report to the Office of Educational Research and improvement (OERI).

Dwyer, D. C. (Ed.). (1985, Fall). *The principal as instructional leader*. Special Issue of *Peabody Journal of Education, 63*(1).

Einhorn, Eric S., & John Logue (Eds.). (1982). *Democracy on the shop floor*. Kent, Ohio: Kent Popular Press.

Elliott, David L., & Arthur Woodward (Eds.). (1990). *Textbooks and schooling in the United States*. Eighty-ninth Yearbook of the National Society of Education. Chicago: University of Chicago Press.

Estrin, Saul, Derek C. Jones, & Jan Svejnar. (1984, June). The varying nature, importance and productivity effects of worker participation: Evidence for contemporary producer cooperatives in industrialized western economies. (mimeo).

Fetterman, David M. (1988). *Excellence and equality*. Albany, NY: State University of New York.

Guzzo, R. A., R. D. Jette, & A. Katzell. (1985). The effects of psychologically based intervention programs on worker productivity: A meta-analysis. *Personnel Psychology, 38*(2), pp. 275-292.

Gustavson, Paul, & James C. Taylor. (1982). Socio-technical design and new forms of work organization: Integrated circuit fabrication. Geneva: International Labor Office. (mimeo).

Gyllenhammar, Pehr G. (1977). *People at work.* Reading, Mass.: Addison-Wesley Publishing Co.

Hopfenberg, Wendy S., Henry M. Levin, Gail Meister, & John Rogers. (1990). *Towards accelerated middle schools for at-risk students.* Report to the Edna McConnell Clark Foundation on Project to Develop Accelerated Middle Schools for Disadvantaged Youth. Stanford, CA: Center for Educational Research at Stanford.

Jackall, Robert, & Henry M. Levin (Eds.). (1984). *Worker cooperatives in America.* Los Angeles: University of California Press.

Johnson, Susan Moore. (1990). Redesigning teachers' work. In Richard Elmore (Ed.), *Restructuring schools.* San Francisco: Jossey Bass. Chap. 5.

Jones, Derek C., & Jan Svejnar (Eds.). (1982). *Participatory and self-managed firms.* Lexington, Mass.: Lexington Books.

Kelly, John E. (1982). *Scientific management, job redesign and work performance.* New York: Academic Press.

Krafcik, John. (1986). Learning from NUMMI. An International Vehicle Program Internal Working Paper. Cambridge, MA: Massachusetts Institute of Technology.

Levin, Henry M. (1980). Educational production theory and teacher inputs. In Charles Bidwell & Douglas Windham (Eds.), *The analysis of educational productivity, volume II: Issues in macroanalysis.* Cambridge, MA: Ballinger Publishing Co., pp. 203-231.

_____. (1986). *Educational reform for disadvantaged students: An emerging crisis.* (1986). West Haven, CT: NEA Professional Library.

_____. (1987). Improving productivity through education and technology. In G Burke and R. Rumberger (Eds.), *The future impact of technology on work and education.* Philadelphia: The Falmer Press, pp. 194-214.

_____. (1987, March). Accelerated schools for disadvantaged students. *Educational Leadership, 44*(6), pp. 19-21.

_____. (1988). Accelerating elementary education for disadvantaged students. In Council of Chief State School Officers, *School success for students at risk,* pp. 209-226. Orlando, FL: Harcourt Brace Jovanovich, Publishers.

_____. (1989, Spring). Financing the education of at-risk students. *Educational evaluation and policy analysis, 11*(1), pp. 47-60.

Levine, David I., & Laura D'Andrea Tyson. (1990). Participation, productivity, and the firm's environment. In Alan S. Blinder (Ed.), *Paying for productivity*. Washington, DC: The Brookings Institution, pp. 183-244.

Lincoln, James R. (1989, Fall). Employee work attitudes and management practice in the U.S. and Japan: Evidence from a large comparative survey. *California Management Review*, *32*(1), pp. 89-106.

Logue, John. (1981, June). Saab/Trollhattan: Reforming work life on the shop floor. *Working Life in Sweden*, No. 23. New York: Swedish Information Service.

Lortie, Dan C. (1975). *Schoolteacher: A sociological study*. Chicago: University of Chicago Press.

Maeroff, Gene I. (1988). *The empowerment of teachers*. New York: Teachers College Press.

Malen, Betty, Rodney Ogawa, & Jennifer Kranz. (1991). What do we know about school-based management: A case study of the literature—a call for research. In William H. Clune & John F. Witte (Eds.), *Choice and control in American education, Vol. 2: The practice of choice, decentralization and school restructuring*. Philadelphia: Falmer Press. Chap. 8.

Miller, K., & P. Monge. (1986). Participation, satisfaction and productivity: A meta-analytic review. *Academy of Management Journal*, *29*(4), pp. 727-753.

Marguiles, N., & S. Black. (1987). Perspective on the implementation of participative approaches. *Human Resource Management*, *26*(3), pp. 385-412.

Murphy, Joseph, & Carolyn Evertson. (Forthcoming). *Restructuring schools: Capturing the phenomenon*. New York: Teachers College Press.

Natriello, Gary, Edward L. McDill, & Aaron M. Pallas. *Schooling disadvantaged children*. New York: Teachers College Press.

New York State Education Department. (1990, October). *A new compact for learning*. Albany: New York State Education Department.

Pallas, Aaron M., Gary Natriello, & Edward L. McDill. (1989, June-July). The changing nature of the disadvantaged population: Current dimensions and future trends. *Educational Researcher*, *18*(5), pp. 16-22.

Peterson, John M. (1989, March). Remediation is no remedy. *Educational Leadership*, *46*(6), pp. 24-25.

Peterson, Kent D. (1985, Fall). Vision and problem finding in principal's work: Values and cognition in administration. *Peabody Journal of Education*, *63*(1), pp. 87-107.

Peterson, Penelope L. (1986, June 17-18). Selecting students and services for compensatory education: Lessons from aptitude-treatment interaction research. Paper prepared for Conference on Effects of Alternative Designs in Compensatory Education, Washington, DC.

Pipkorn, Jorn. (1980, February). The legal framework of employee participation methods at national and international level and particularly within the European community. *Economic and Industrial Democracy, I*(1), pp. 99-123.

Rogers, John S., & Robert Polkinghorn, Jr. (1989). The inquiry process in the accelerated school: A Deweyan approach to school renewal. Paper presented at the Conference on Accelerating the Education of At-Risk Students, Stanford University, November 17-18, 1988, Revised Version.

Romberg, Thomas A. (1986, June 17-18). Mathematics for compensatory school programs. Paper prepared for the Conference of Effects of Alternative Designs in Compensatory Education, U.S. Department of Education.

Rowan, Brian. (1990). Applying conceptions of teaching to organizational reform. In Richard Elmore (Ed.), *Restructuring schools*. San Francisco: Jossey Bass. Chap. 2.

Schultz, Theodore W. (1975, September). The value of the ability to deal with disequilibria, Vol. XIII, No. 3, pp. 827-846.

Sykes, Gary. (1990). Fostering teacher professionalism in schools. In Richard Elmore (Ed.), *Restructuring schools*. San Francisco: Jossey Bass. Chap. 3.

Tsang, Mun Chiu. (1987). The impact of underutilization of education on productivity: A case study of the U.S. Bell Companies. *Economics of Education Review, 6*(3), pp. 239-254.

Weick, Karl E. (1976). Educational organization as loosely coupled systems. *Administrative Science Quarterly*, Vol. 21, pp. 1-19.

Wise, Arthur E. (1979). *Legislated Learning*. Berkeley, CA: University of California Press.

Zuboff, Shoshana. (1988). *In the age of the smart machine*. New York: Basic Books, Inc.